

REMARKS/ARGUMENTS

After the foregoing Amendment, claims 1-24 are currently pending in this application. Claims 1 and 7 were amended to clarify that the last step of the method in claim 1 and the last function of the RNC in claim 7 are separate. Claim 16 has been amended to more clearly describe the claimed invention. Applicants submit that no new matter has been introduced into the application by these amendments.

Claim Rejections - 35 USC § 112

Claims 16-20 stand rejected under 35 USC § 112 as failing to comply with the enablement requirement.

The Examiner states that the claims contain subject matter that was not described in the specification in such a way as to enable one skilled in the art to make or use the invention. Applicants have amended claim 16 in order to more clearly describe the invention. In accordance with Figure 1, the specification states that "[c]odes in each row further down the tree have a spreading factor twice the factor of the row above that code." (Paragraph 0004.) Furthermore, in Figures 1, 2a, and 2b, the codes that are lower in the tree are shown to have a value of twice that of the one assigned above it. Applicants believe this disclosure enables one of reasonable skill in the art to make or use this invention.

Claims 17-20 are dependent upon claim 16, which the Applicants believe are allowable over the cited prior art of record for the same reasons provided above.

Based on the amendment and arguments presented above, withdrawal of the rejection of claims 16-20 is respectfully requested.

Claim Rejections - 35 USC § 102(e)

Claims 1, 5, 11, 21 and 22 stand rejected under 35 USC §102(e) as being anticipated by U.S. Patent No. 7,020,176 to Heo (hereafter "Heo".)

The present invention is a system and method for orthogonal variable spreading factor (OVSF) code assignment, de-allocation and code tree pruning. The present invention operates by assigning and reassigning OVSF codes. Sequential code identifiers are grouped by spreading factor and remain in sequence, and this allows for reduced storage space for code assignments. The present invention further allows more flexibility in future code assignments using a technique referred to as "tree pruning" (see paragraph 0029). Pruning operates by reassigning codes; see, e.g., Figures 6, 7, and 8.

Heo discloses a method and system for downlink channelization code assignment or allocation in a UMTS system while maintaining the existing or assigned OVSF codes (column 3, line 60 – column 4, line 3). Heo operates by assigning an OVSF code to each new channel. Certain codes are reserved in order

to preserve orthogonal assignments for new channels. Heo uses an optimum code search function to search empty channels and then assign an OVSF number to the optimum channelization (column 6, lines 5 – 32). Heo's summary as cited above discusses that the invention maintains the existing or assigned OVSF codes (column 3, line 60 - column 4, line 22). Claim 1 of the present invention cites a method for reassigning codes of an OVSF code tree". Applicant believes this distinction is novel over the cited art.

Whereas Heo discloses an algorithm for choosing an optimal channelization among the existing codes, the present invention reassigns codes and prunes the code tree in order to allow for flexible code assignment. Heo fails to disclose an optimization method involving pruning and reassignment, and further Heo specifically teaches away from this aspect of the present invention because it states that it seeks to "maintain the existing or assigned OVSF codes" (column 3, lines 60-63).

Claim 7 of the present invention similarly claims "reassigning the selected assigned codes to the other codes." Heo's disclosure is deficient in this particular aspect of the invention for the same reasons as mentioned above.

Regarding claim 21, the present invention claims a method where each code is numbered sequentially, "wherein codes having a same spreading factor are in sequence." The numbering method discussed in Heo is substantially different, in

that it assigns the root branch a generated channelization code number (see column 6 lines 26-32). In Heo, a flag is represented by a spreading factor and a code, i.e. in the format of: (SF, code). According to the disclosure, the spreading factor would also be represented by upper flags of its upper corresponding spreading factor as well (see column 6, lines 16-32). Heo fails to disclose numbering the codes sequentially. Therefore, the method of numbering claimed in the present invention is distinct and novel over the cited art.

Regarding claim 23, in accordance with the disclosure, the code availability for OVSF codes are determined by using a two bit flag. The first of the two bits indicates whether the code is blocked, and the second bit indicates whether the code is blocked by one or two codes. Heo fails to disclose the use of a two bit flag that can determines blocking by a single code or by multiple codes. In accordance with the disclosure in Heo, a flag only determines whether a particular code number is available, but if it is unavailable it does not seek further data as to the extent of the blockage (see column 7 lines 27 -50).

Claim(s) 2-6, 8-15, 17-22, and 24 are dependent upon claims 1, 7, 16, 23, respectively, which the Applicants believe are allowable over the cited prior art of record for the same reasons provided above.

Based on the arguments presented above, withdrawal of the rejection of claims 1-24 is respectfully requested.

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Application No.: 10/622,681

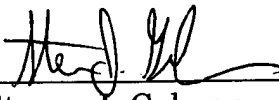
Conclusion

If the Examiner believes that any additional minor formal matters need to be addressed in order to place this application in condition for allowance, or that a telephone interview will help to materially advance the prosecution of this application, the Examiner is invited to contact the undersigned by telephone at the Examiner's convenience.

In view of the foregoing amendment and remarks, Applicants respectfully submit that the present application, including claims 1 - 24, is in condition for allowance and a notice to that effect is respectfully requested.

Respectfully submitted,

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